


REVISION HISTORY			MESSRS	
No.	DATE	DESCRIPTION	FOR REFERENCE	
			TITLE <p style="text-align: center;"><u>TRIPPING RELAY</u> WITH LINE DETECTOR</p> <p style="text-align: center;">■ TPR2A, 3A, 3B</p> <ol style="list-style-type: none"> 1. GENERAL INFORMATION 2. <u>INSTALLATION & REPLACEMENT</u> 3. TPR2A DIMENSION & SPECIFICATION 4. TPR2A CONNECTION & TIMING CHART 5. <u>TPR2A CHANNEL FUNCTION FLOWCHART</u> 6. TPR3A DIMENSION & SPECIFICATION 7. TPR3A CONNECTION & TIMING CHART 8. <u>TPR3A CHANNEL FUNCTION FLOWCHART</u> 9. TPR3B DIMENSION & SPECIFICATION 10. TPR3B CONNECTION & TIMING CHART 11. <u>TPR3B CHANNEL FUNCTION FLOWCHART</u> 	
			12 SHEETS WITH COVER	
			CLASS	DNV.GL. BV
			APPROVED BY	
			DESIGNED BY	C. KANG
			DATE	25-May-2020
			DRAW No.	BM2020325-TPR
			 BMTECH 3rd Fl., Tae-An BLD., #317-1 Cheonghak-Dong, Young do-Gu, 606-070 Busan Korea. TEL : 051-416-0670 http://www.bmtk.co.kr FAX : 051-412-0674 E/mail : bmtk@bmtk.co.kr	

TPR (TRIPPING RELAY)

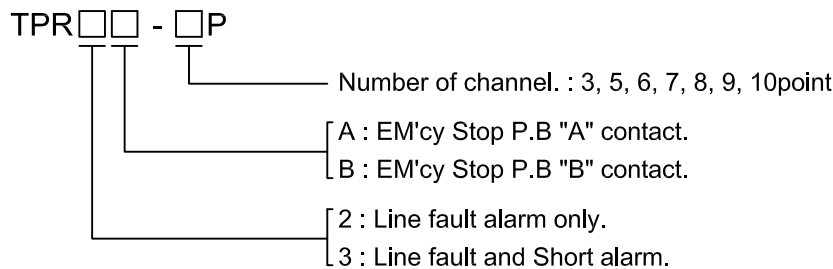
Emergency Stop Relay with line detector

- General Information
- Specifications

Emergency Stop relay with Line fault & short alarm.

- The TPR Series consists of one common card and several channels.
- Each channel operates independently and does not affect other channels.
- TPR series can use STOP P.B contacts as A or B contact and can be easily replaced with CARD EDGE TYPE.

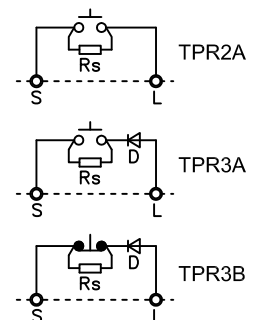
Ordering Information



General Specifications

	TPR2A	TPR3A	TPR3B (option)
External P.B type	"A"	"A"	"B"
Number of External P.B	1 to 4	1 to 4	1
External P.B structure	10KΩ 1/2W	10KΩ 1/2W and Diode	
Line Fault Alarm	○	○	
Line Short Alarm			○
Trip contact type	1c (SPDT)	1c (SPDT)	

External P.B structure



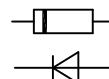
Common Specification

P.B Control circuit	12 VDC / Current Loop Control	
Voltage Range	90 to 254VAC 50/60Hz	
Power Consumption	5Watt / 10VAmx. at 10 points load	
Trip Contact endurance	Electrical	8A at 250 VAC / 50,000 operation min.
	Mechanical	10,000,000 operation min.
Terminal Block	300V 10A / AWG 22-12 / 1.6kV / cULus	
Vibration	IEC 60945 (2 to 100Hz)	
Ambient Temp	-20°C to 60°C (-20°C : with no icing)	
Insulation	100MΩ min. at 500 VDC	
Enclosure / Mounting	UL94V-0 / DIN 35 Rail mounting	

Rs(resistor)
10KΩ 1/2W 1%



D(diode)
Maker supply



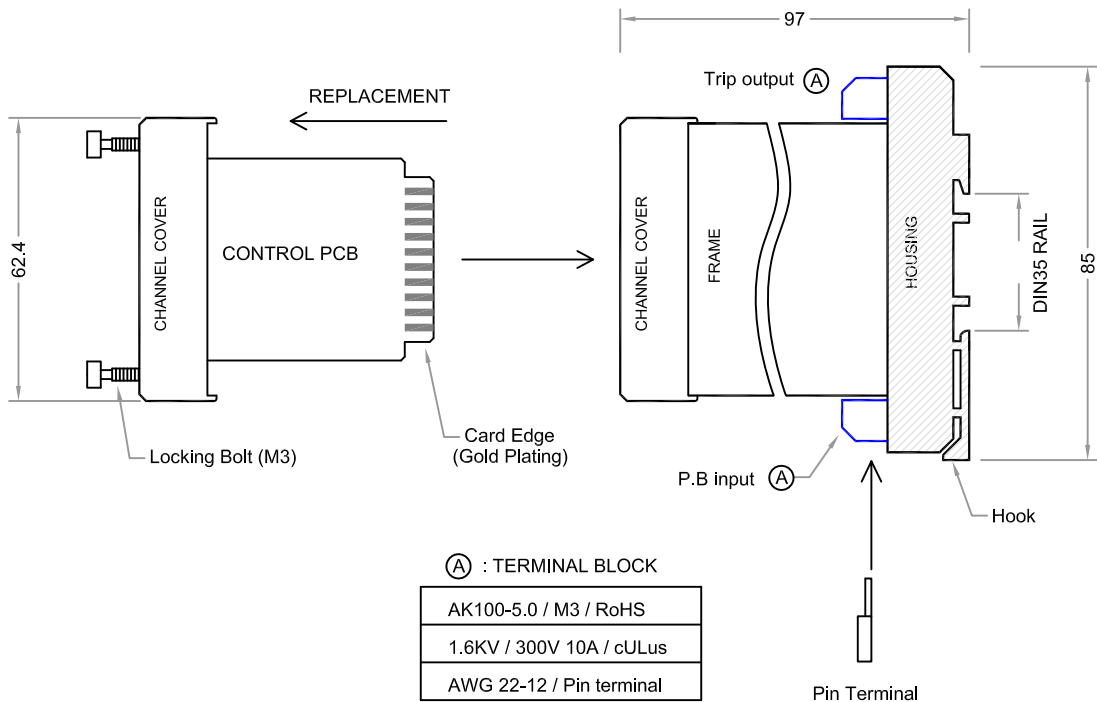
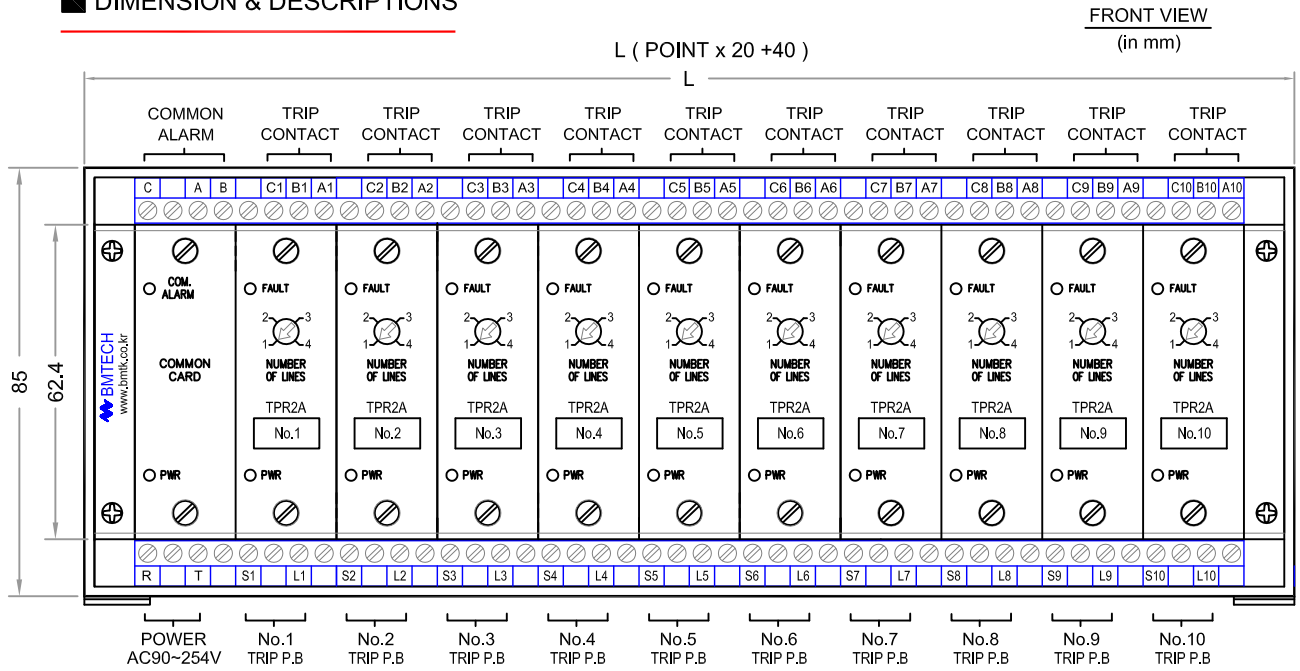
TPR (TRIPPING RELAY)

TPR2A / 3A / 3B

■ Installation

■ Replacement

■ DIMENSION & DESCRIPTIONS



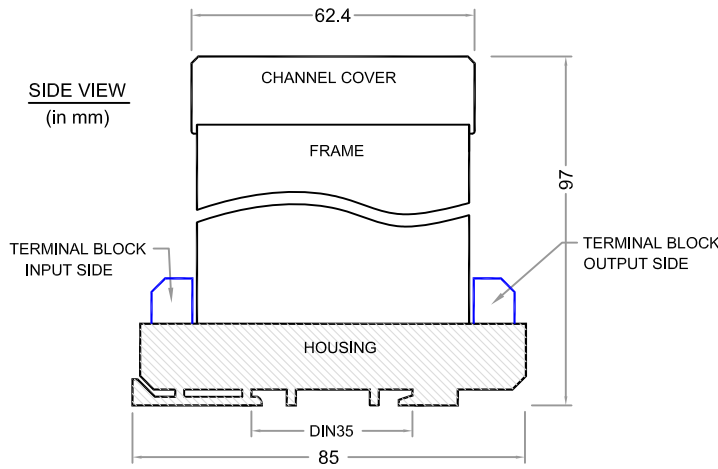
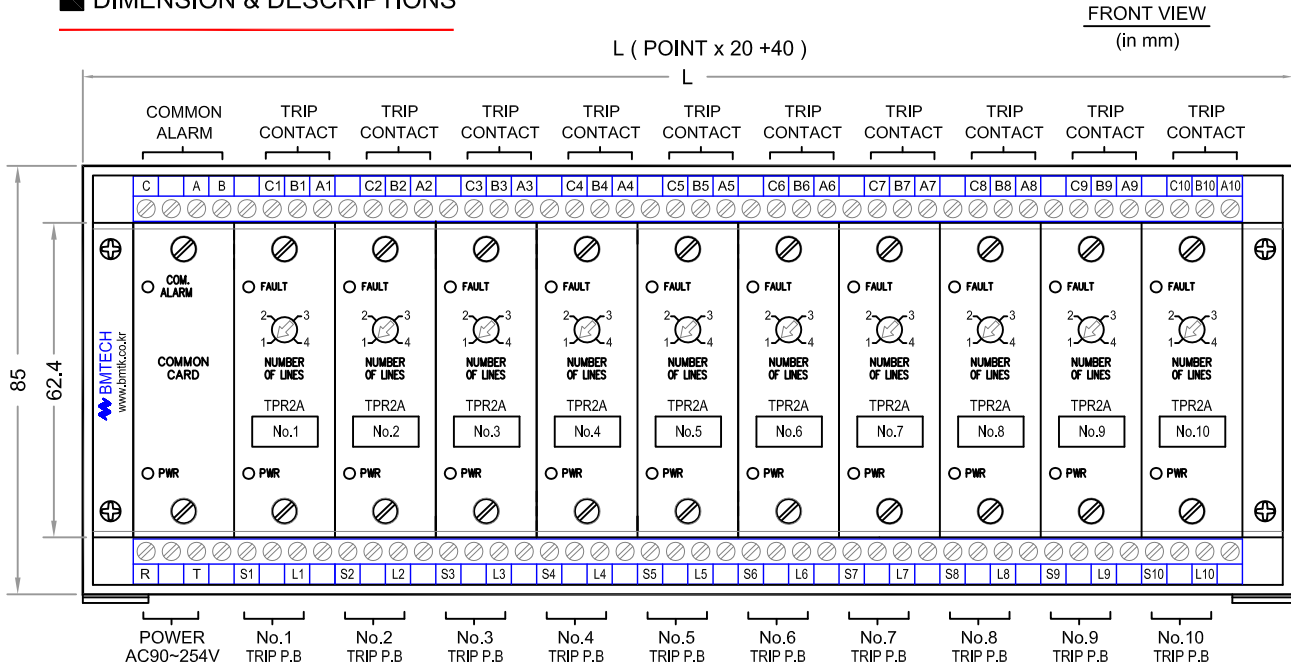
TPR2A (TRIPPING RELAY)

TPR2A-10P P.B(A) TRIP / LINE FAULT ALARM

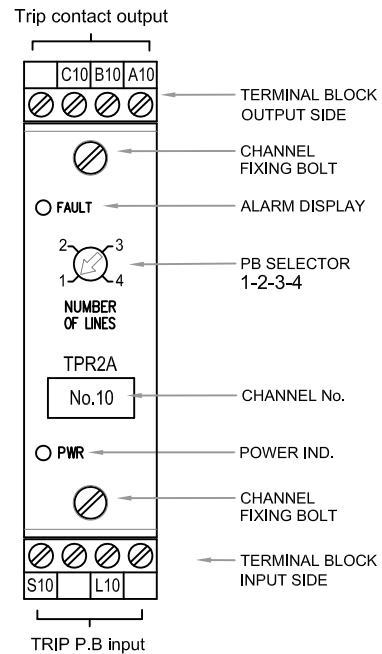
Dimension & Description

Specifications

DIMENSION & DESCRIPTIONS



CHANNEL FRONT VIEW



SPECIFICATIONS

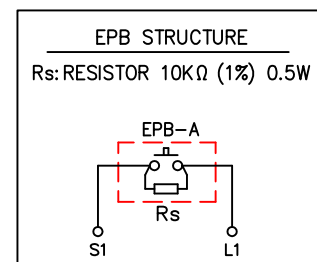
MODEL : TPR2 □ □ P

- CHANNEL POINT (3, 5, 6, 7, 8, 9, 10)
- PB TYPE (A / B)
- TPR2 : LINE FAULT ALARM
- TPR3 : LINE FAULT & SHORT ALARM

POWER	90-254VAC / 5W / 10VA
EPB CONTROL	12VDC / Current Control type
P.B	"A" CONTACT / 1 to 4 CIR.
TRIP	"A" or "B" CONTACT
ALARM	LINE FAULT
Vibration	IEC 60945 (2 to 100Hz)
Ambient Temp.	-20°C to 60°C
Insulation	100MΩ min. at 500VDC
Enclosure	UL 94V-O
Mounting	DIN RAIL35

DIMENSION TABLE

MODEL	L(mm)
TPR2A - 3P	100
TPR2A - 5P	140
TPR2A - 6P	160
TPR2A - 7P	180
TPR2A - 8P	200
TPR2A - 9P	220
TPR2A - 10P	240



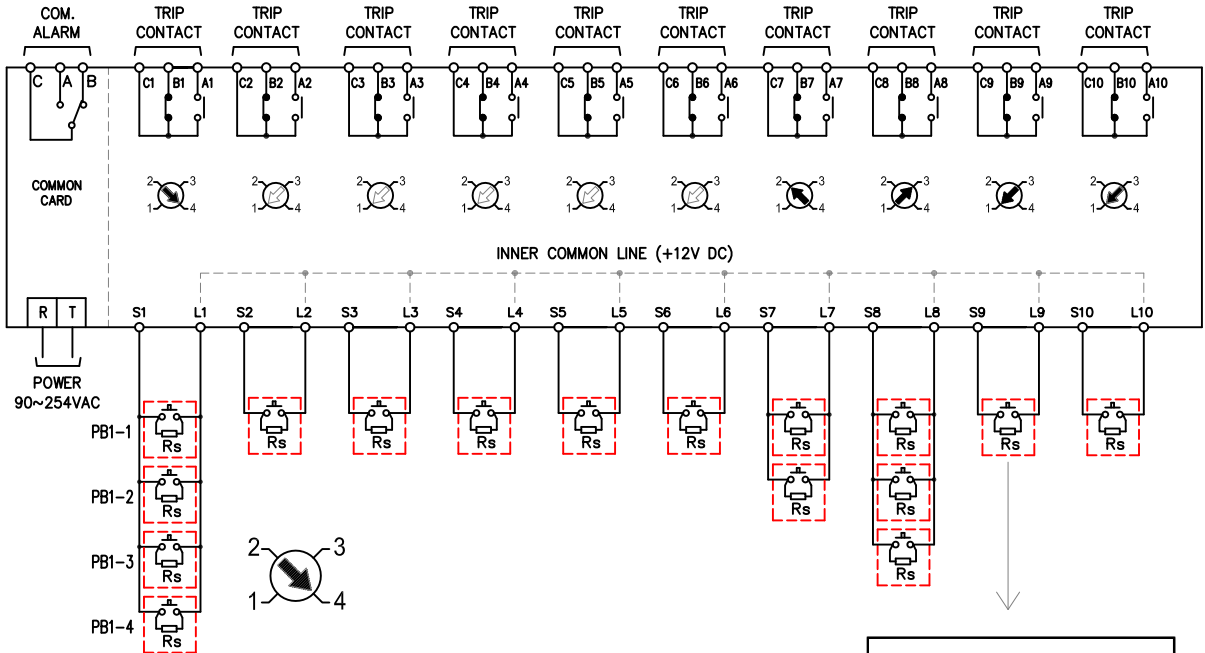
TPR2A (TRIPPING RELAY)

TPR2A-10P P.B(A) TRIP / LINE FAULT ALARM

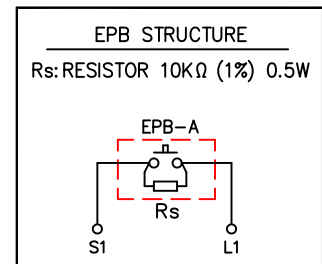
■ Connection

■ Timing chart

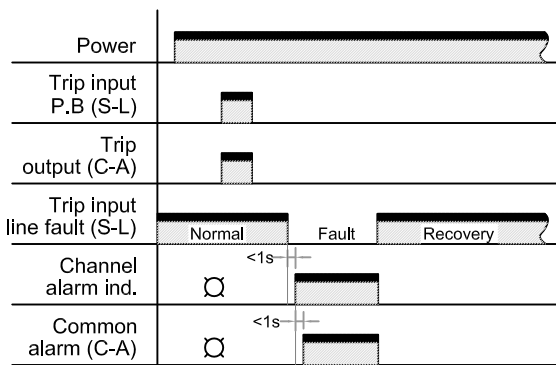
CONNECTION



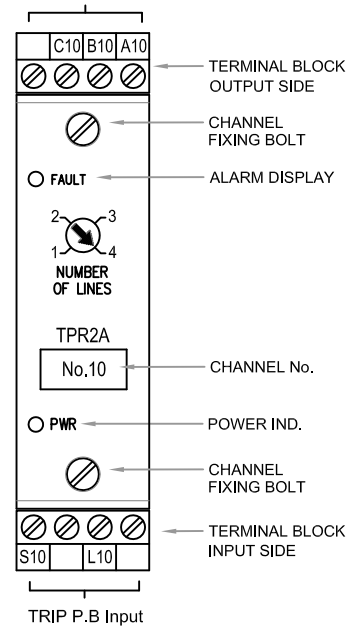
Set the selector on the front of the channel to 4 circuits.
An alarm will be generated if the cable is disconnected at any one of (S1) - (L1) of PB1-1 to PB1-4.



TIMING CHART

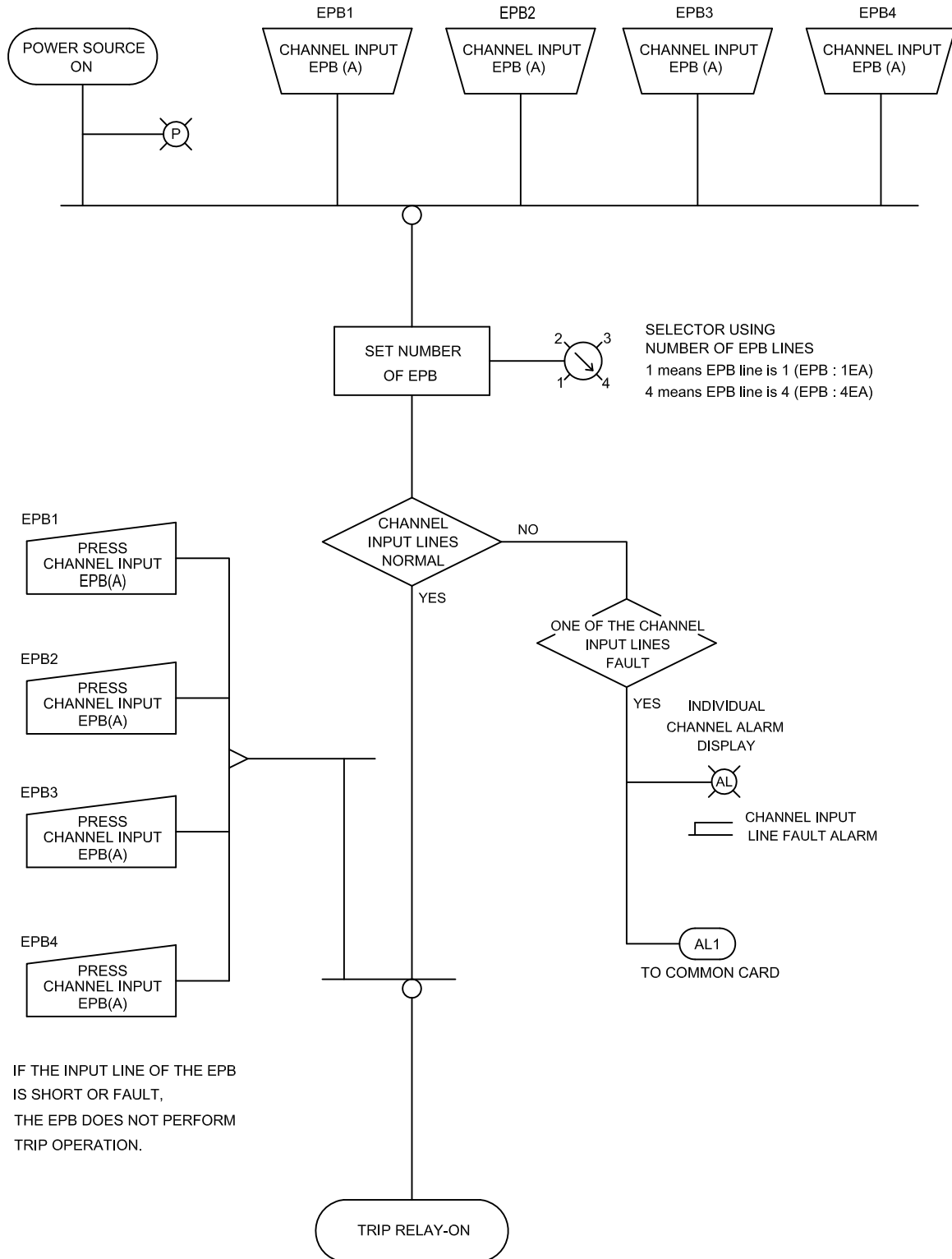


Trip contact output



TPR2A (TRIPPING RELAY)

TPR2A 1 CHANNEL FUNCTION FLOWCHART

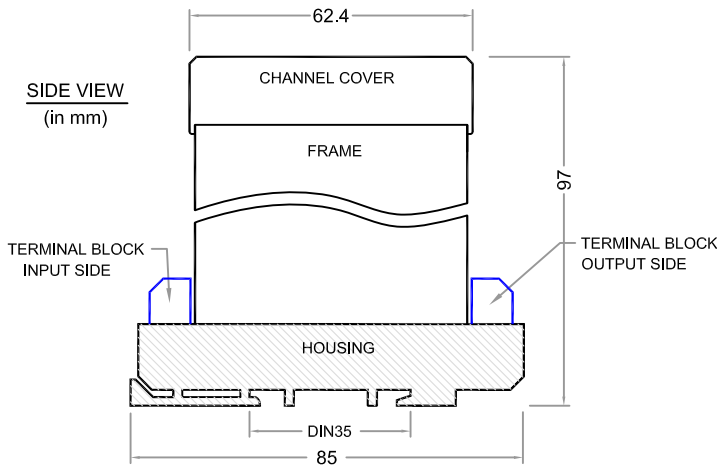
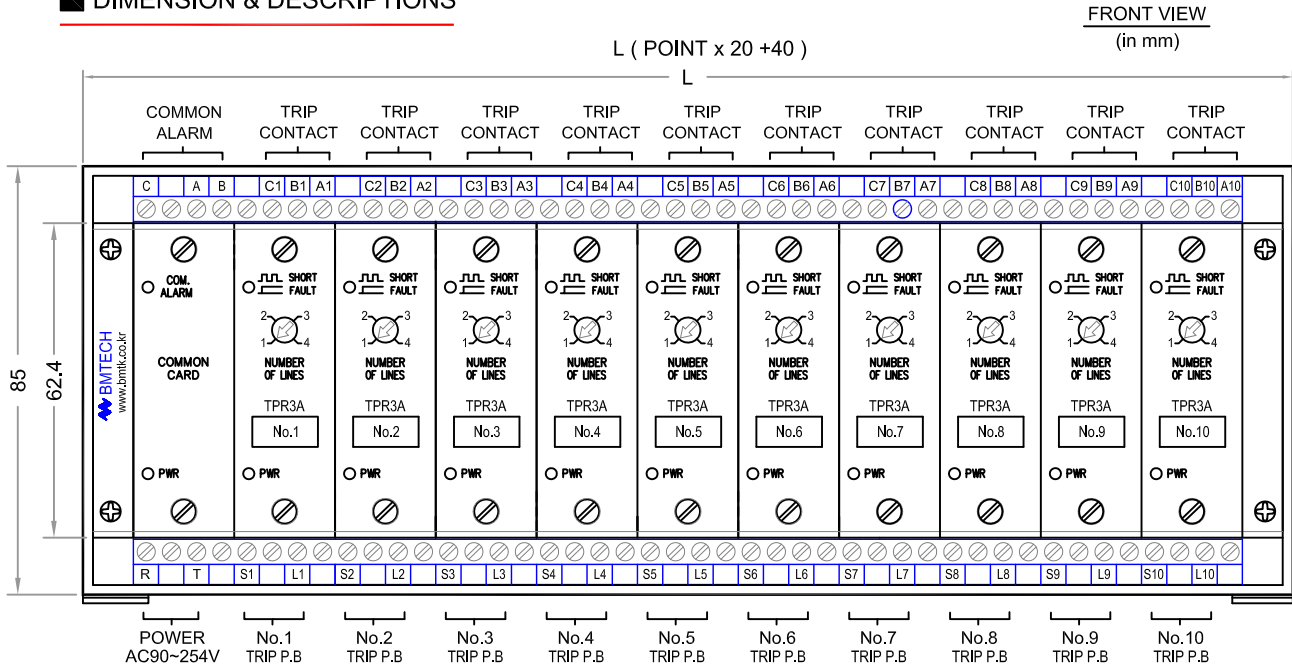


TPR3A (TRIPPING RELAY)

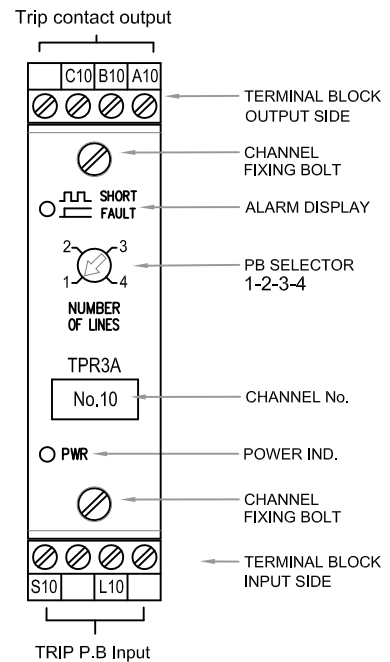
TPR3A-10P P.B(A) TRIP / LINE FAULT & SHORT ALARM(2ndary)

- Dimension & Description
- Specifications

DIMENSION & DESCRIPTIONS



CHANNEL FRONT VIEW



SPECIFICATIONS

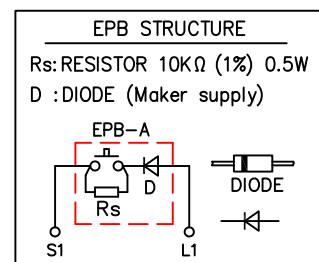
MODEL : TPR3□-□ P

- CHANNEL POINT (3, 5, 6, 7, 8, 9, 10)
- PB TYPE (A / B)
- TPR2 : LINE FAULT ALARM
- TPR3 : LINE FAULT & SHORT ALARM

POWER	90-254VAC / 5W / 10VA
EPB CONTROL	12VDC / Current Control type
P.B	"A" CONTACT / 1 to 4 CIR.
TRIP	"A" or "B" CONTACT
ALARM	LINE FAULT & SHORT
Vibration	IEC 60945 (2 to 100Hz)
Ambient Temp.	-20°C to 60°C
Insulation	100MΩ min. at 500VDC
Enclosure	UL 94V-O
Mounting	DIN RAIL35

DIMENSION TABLE

MODEL	L(mm)
TPR3A - 3P	100
TPR3A - 5P	140
TPR3A - 6P	160
TPR3A - 7P	180
TPR3A - 8P	200
TPR3A - 9P	220
TPR3A - 10P	240



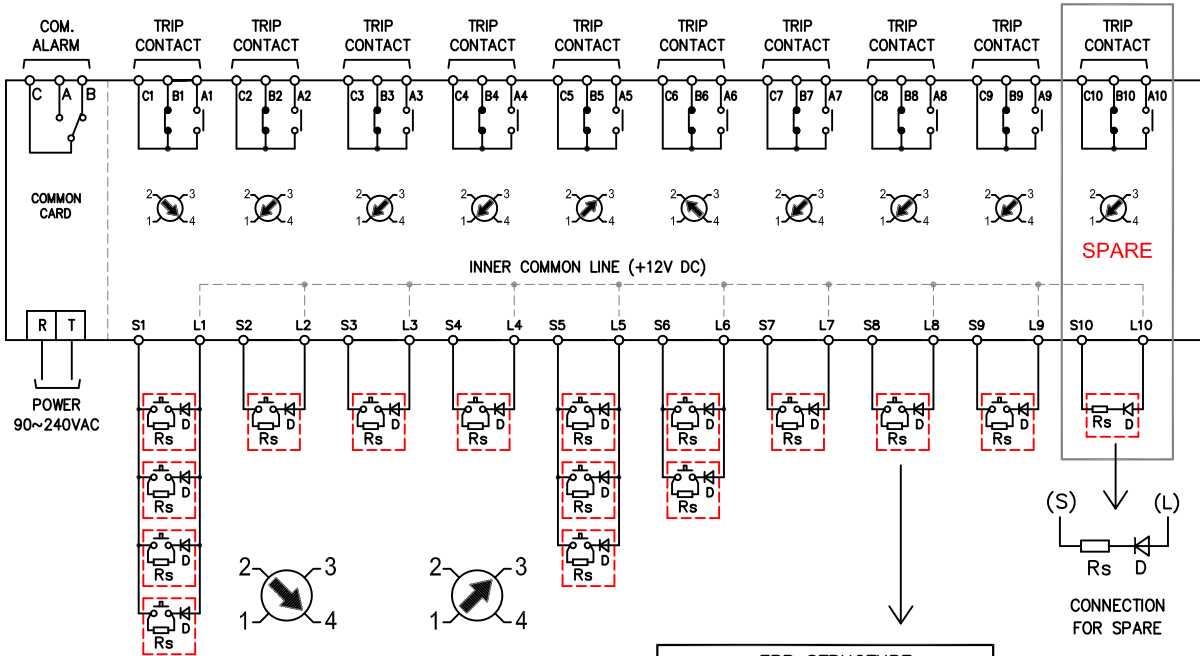
TPR3A (TRIPPING RELAY)

TPR3A-10P P.B(A) TRIP / LINE FAULT & SHORT ALARM

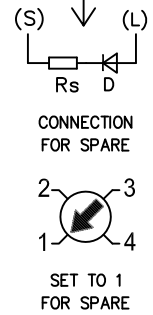
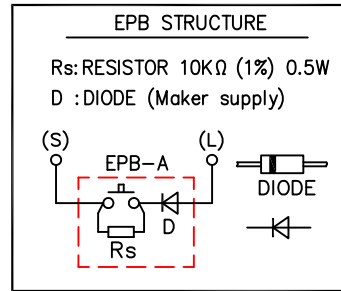
■ Connection

■ Timing chart

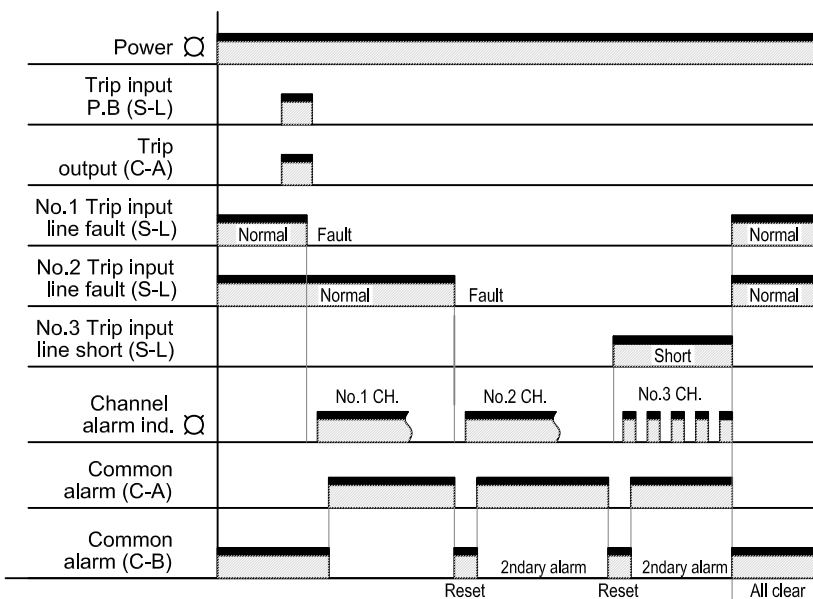
CONNECTION



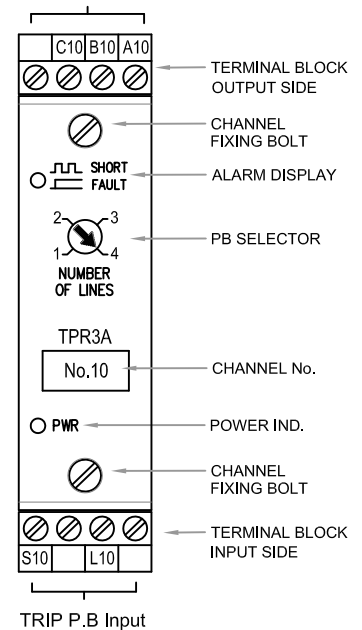
Set the selector on the front of the channel to 4 circuits.
 An alarm will be generated if the cable is disconnected at any one of (S1) - (L1) of PB1-1 to PB1-4.
 An alarm will also be generated if a short between (S1) - (L1) lines occurs.



TIMING CHART

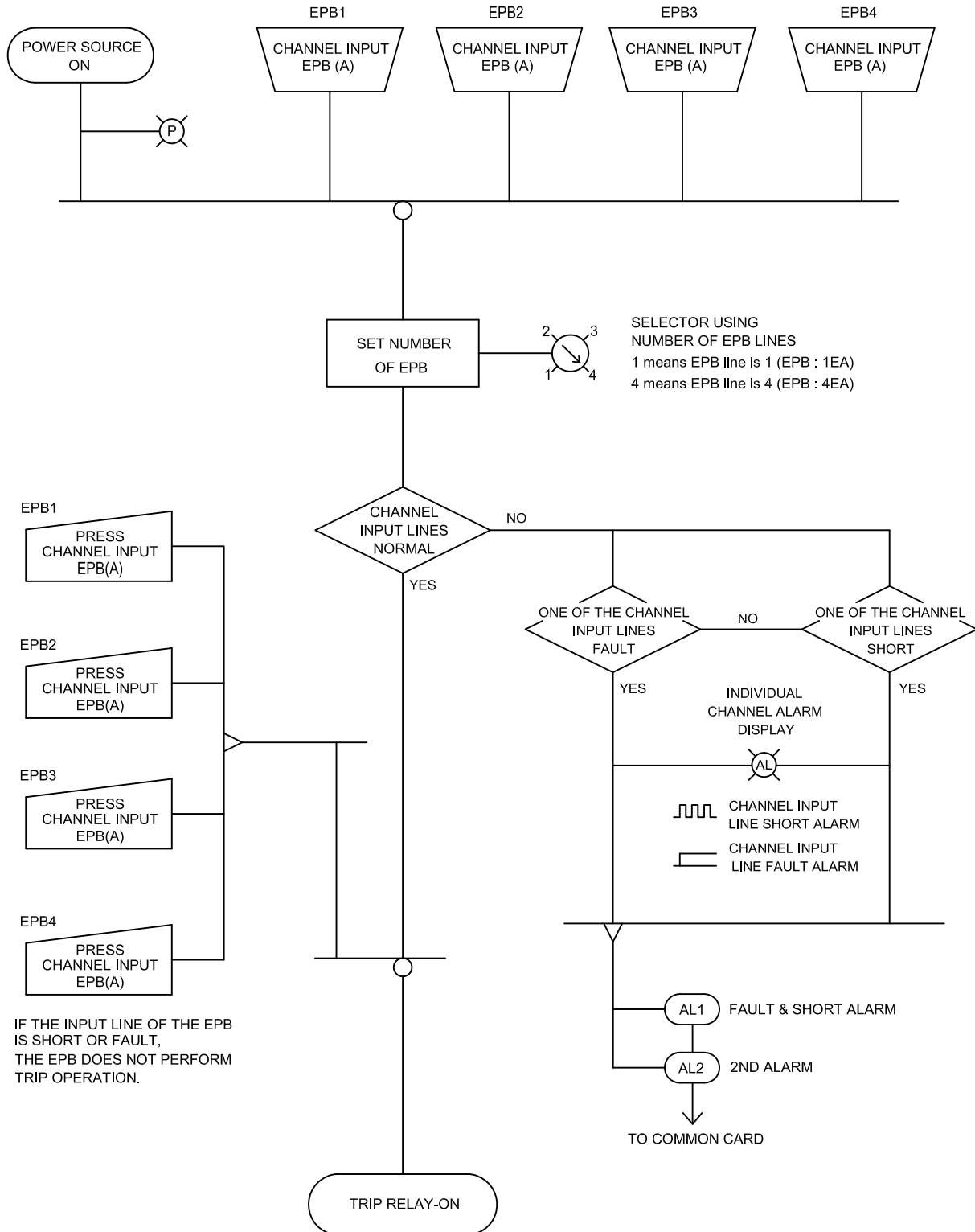


Trip contact output



TPR3A (TRIPPING RELAY)

TPR3A 1 CHANNEL FUNCTION FLOWCHART

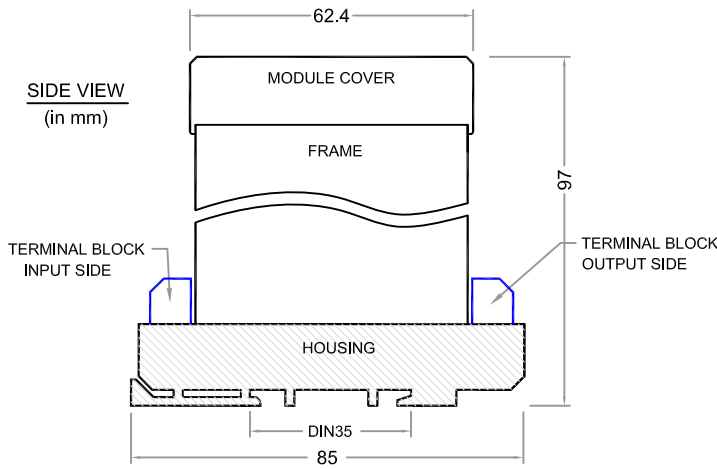
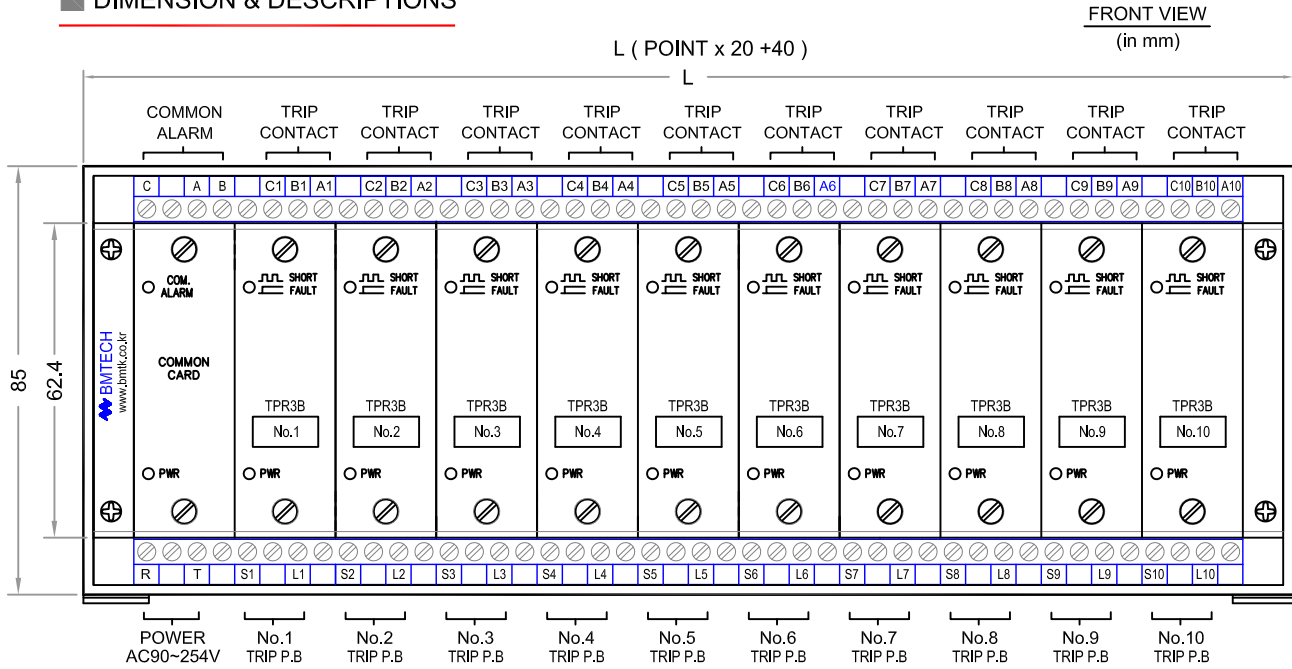


TPR3B (TRIPPING RELAY)

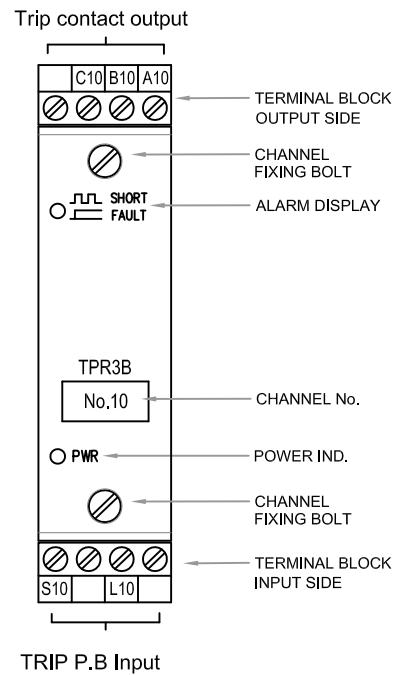
TPR3B-10P P.B(B) TRIP / LINE FAULT & SHORT ALARM

- Dimension & Description
- Specifications

DIMENSION & DESCRIPTIONS



CHANNEL FRONT VIEW



SPECIFICATIONS

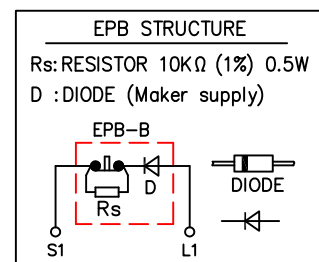
MODEL : TPR3 - P

- CHANNEL POINT (3, 5, 6, 7, 8, 9, 10)
- PB TYPE (A / B)
- TPR2 : LINE FAULT ALARM
- TPR3 : LINE FAULT & SHORT ALARM

POWER	90-254VAC / 5W / 10VA
EPB CONTROL	12VDC / Current Control type
P.B	"B" CONTACT / 1 CIR.
TRIP	"A" or "B" CONTACT
ALARM	LINE FAULT / SHORT
Vibration	IEC 60945 (2 to 100Hz)
Ambient Temp.	-20°C to 60°C
Insulation	100MΩ min. at 500VDC
Enclosure	UL 94V-O
Mounting	DIN EN 6075 / IEC 6075

DIMENSION TABLE

MODEL	L(mm)
TPR3B - 3P	100
TPR3B - 5P	140
TPR3B - 6P	160
TPR3B - 7P	180
TPR3B - 8P	200
TPR3B - 9P	220
TPR3B - 10P	240



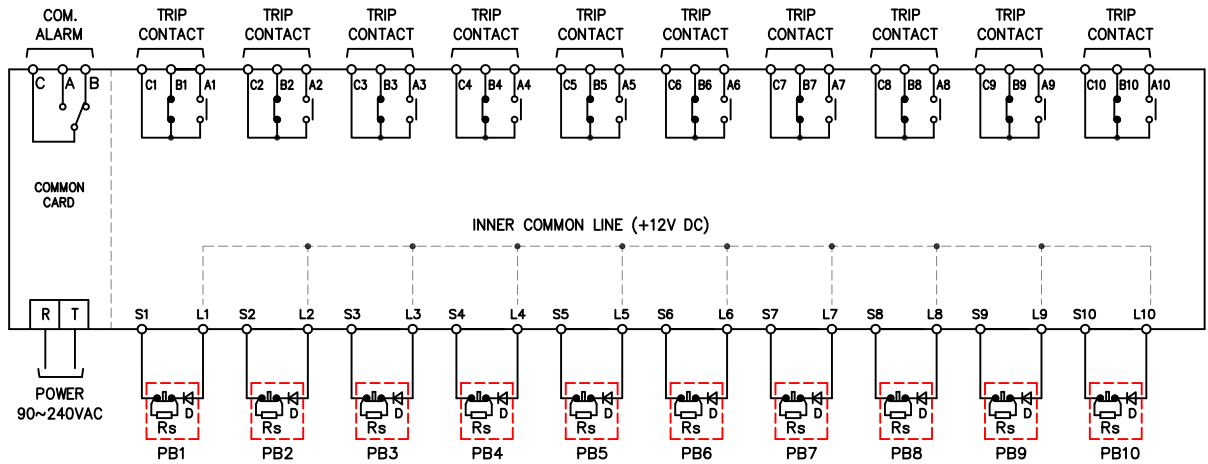
TPR3B (TRIPPING RELAY)

TPR3B-10P P.B(B) TRIP / LINE FAULT & SHORT ALARM

■ Connection

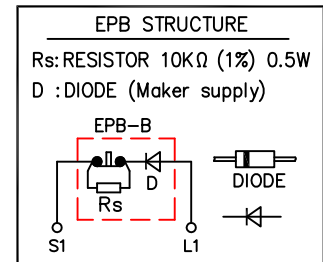
■ Function Flowchart

CONNECTION

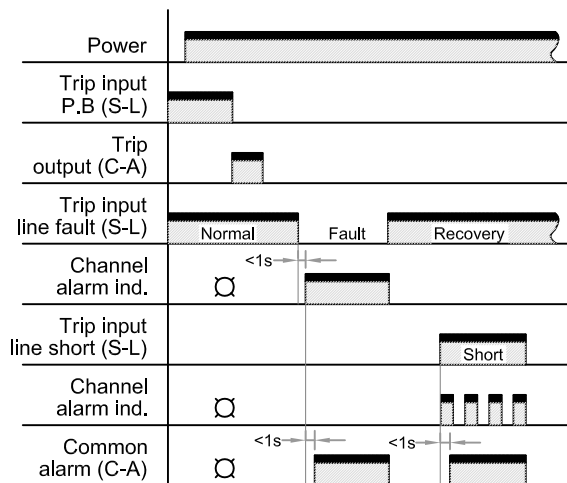


An alarm will be generated if the cable is disconnected at (S1) - (L1).

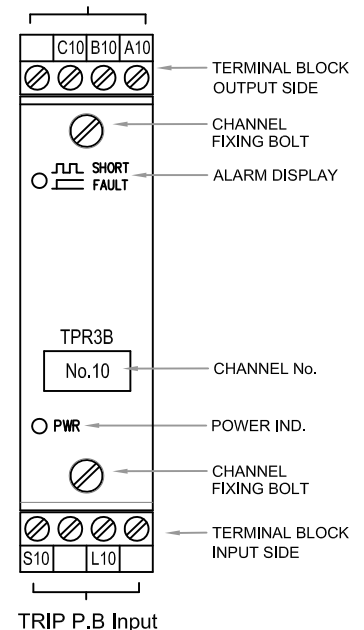
An alarm will also be generated if a short between (S1) - (L1) lines occurs.



TIMING CHART



Trip contact output



TPR3B (TRIPPING RELAY)
TPR3B 1 CHANNEL FUNCTION FLOWCHART

